***Expressions, Equations and Inequalities***

1) **Expression**

-a mathematical phrase containing numbers, variables and/or operations

-can be evaluated or simplified, but they cannot be “solved”

Examples: 5x – 2 12/x + 3t – r2 4(5) 12

\*Numerical expressions can be simplified to one number : 8 ÷ 22 + 13

\*Algebraic expressions can be simplified: 6x + 7 + 12x

\*Algebraic expressions can be evaluated for given variables: 9t-12 when t=4

2) **Equation**

-a mathematical sentence that states two expressions are equal

-has an equal sign between the two expressions

-can be solved and usually have one solution

-act like a balance scale

Examples: 8 + x = 12 5t – 24 = 17 12/2 + 4(5) = 2m

3) **Inequality**

-a mathematical sentence that says that one expression is greater than or less than another expression

-has inequality signs: < (less than), ≤ (less than or equal to) ,

> (greater than) , ≥ (greater than or equal to)

-can be solved but have many solutions

-like an *un*balanced scale

Examples: 4+2 ≤ t+7 3/4r > 7+122 -5 x > 6

**\*Solution**- the value or values that make an equation or inequality true